UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,355	11/23/2001	Chia-Jui Yeh	MR3029-6	2003

4586 7590 06/15/2004

ROSENBERG, KLEIN & LEE
3458 ELLICOTT CENTER DRIVE-SUITE 101
ELLICOTT CITY, MD 21043

EXAMINER	
DHARIA, PRABODH M	

ART UNIT	PAPER NUMBER
2673	4

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/990,355	YEH, CHIA-JUI	
	Examiner	Art Unit	
	Prabodh M Dharia	2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 May 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-68* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-68* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. **Status:** Receipt is acknowledged of papers submitted on 05-17-2004 under amendments have been placed of record in the file. Claims 1-68, are pending in this action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 42-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakashima (5,729,251).

Regarding Claim 42, Nakashima teaches a processing method of a sub-circuit with electromagnetic induction (Col. 38, Lines 31-34) in the motionless-image processing system (Col. 1, lines 14,15, Lines 33,34), said processing method comprising: performing a scanning step to receive electromagnetic wave signal (Col. 22, Lines 37-53); performing a magnifying/filtering step (Col. 17, Lines 64 to Col. 18, Line 43) to generate a signal with a specific frequency (Col. 17, Lines 14-63); receiving said signal with said specific frequency and performing a transforming step to generate a digital signal (Col. 17, Line 14 to Col. 18, Line 43); receiving said signal with said specific frequency and performing a frequency- calculating step to generate a clock signal, performing a coordinate calculating step to calculate an absolute coordinate according said digital signal (Col. 17, Line 14 to Col. 18, Line 43); performing a

pressure-calculating step to calculate a pressure value according to said clock signal; and transmitting said absolute coordinate and said pressure value to perform an image-mixing function (Col. 20, Line 66 to Col. 22, Line 36).

Regarding Claim 43, Nakashima teaches scanning step is performed by way of using an antenna loop (Col. 27, Lines 18-21).

Regarding Claim 44, Nakashima teaches magnifying/ filtering step is performed by way of using an amplifier and a filter (Col. 17, Lines 64 to Col. 18, Line 43).

Regarding Claim 45, Nakashima teaches transforming step is performed by way of using an Analogy/Digital converter (Col. 20, Line 66 to Col. 22, Line 36).

Regarding Claim 46, Nakashima teaches coordinate-calculating step and said pre s sure-calculating step are performed by way of using a microprocessor (Col. 20, Line 66 to Col. 22, Line 36).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1,2,4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nachani in view of Nakashima (5,729,251).

Regarding Claim 1, Nichani teaches an image processing system (Col. 4, Lines 6-8) comprising: image-transmitting means for generating and transmitting a first image signal (Col. 4, Lines 49-53), transmitted to computer-image processing system (Col. 8, Lines 33-39); electromagnetic induction means for- generating and transmitting a second image signal (Col. 5, 43-47, Col. 6, Lines 12-15); image processing means for receiving said first image signal and said second image signal to control and perform a plurality of image processing functions (Col. 7, Line 62 to Col. 8, Line 6), so as to generate a showing signal (Col. 9, Line 61 to Col. 10, Line 3); storage means for accessing image data into said image processing means; and display means for receiving said showing signal to display image (Col. 12, Lines 1-27).

However, Nichani fails to teach specifically electromagnetic induction means for- generating and transmitting a second image signal.

However, Nakashima teaches electromagnetic induction means for- generating and transmitting a second image signal (Col. 38, Lines 31-49).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Nakashima teaching in teaching of Nichani to be able to transfer various types of information between an information processing system with a display section which carries out various types of information processing and a wireless coordinate indication device such as a stylus pen.

Regarding Claim 2, Nichani teaches wherein said image- transmitting means receives image data (Col. 4, Lines 49-53, transmitted to computer-image processing system Col. 8, Lines 33-39, Col. 5, 43-47, Col. 6, Lines 12-15), by transduction of optical radiation of the image data (Col. 8, lines 33-39).

Regarding Claim 4, Nakashima teaches wherein said electromagnetic induction means receives electromagnetic wave signal by way of using electromagnetic induction (Col. 38, Lines 31-49).

Regarding Claim 5, Nichani teaches wherein said second image signal comprises an absolute coordinate in order to show the position of the image (Col. 10, Lines 42-54).

Regarding Claim 6, Nichani teaches wherein said second image signal comprises a pressure value in order to show the size of the image (Col. 8, lines 33-39, Col. 7, lines 48-50).

Regarding Claim 7, Nichani teaches wherein said plurality of image processing functions comprises a mixing mode (Col. 4, Lines 49-62).

Regarding Claim 8, Nichani teaches wherein said plurality of image processing functions comprises a deleting mode (Col. 4, Lines 49-67).

6. Claims 3,9,10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nachani in view of Nakashima (5,729,251) as applied to claims 1,2,4-8 above, and further in view of Richey (5,495,576)..

Regarding Claim 3, Nichani teaches an image processing system (Col. 4, Lines 6-8)

However, Nichani fails to teach image- transmitting means receives image data by way of using communication

However, Ritchey teaches image- transmitting means receives image data by way of using communication (Col. 11, lines 1-4, Col. 8, Lines 7-16).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Ritchey teaching in teaching of Nichani to be able to manipulate using given data of 3D shape and contour, the geometry of subject comprising virtual model for presentation and distribution to display unit.

Regarding Claim 9, Ritchey teaches wherein said plurality of image processing functions comprises a broadcasting mode (Col. 32, Lines 21-67).

Regarding Claim 10, Ritchey teaches wherein said plurality of image processing functions comprises a setting mode (Col. 29, Lines 58,59, Col. 32, line 65, Col. 33, Line 14).

7. Claims 11,12,13,17,18,23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mager et al. (5,257,093) in view of Wu et al. (6,094,504).

Regarding Claim 11, Mager et al. teaches an image sensing sub-circuit (figure 2, Col. 2, Line 51, Col. 10, Lines 4,5), said image sensing sub-circuit (figure 2, Col. 2, Line 51, Col. 10, Lines 4,5), can catches image by transduction (Col. 1, 8-12, 14-20, Col. 9, Lines 46-58) of optical radiation of the image data to generate a first image signal (Col. 10, lines 54-59, Col. 11, Lines 7-12, Col. 2, lines 44-51).

However, Mager fails to teach a motion less image processing system an image transmitting sub-circuit that is coupled with the external computer to communicate image data; an electromagnetic induction sub-circuit for receiving the electromagnetic wave signal; and generating a second image signal; an image processing sub-circuit that is coupled with said image sensing sub-circuit to receive said first digital signal, and said image processing sub-circuit is coupled with said transmitting sub-circuit to communicate said image data and wherein said image processing sub-circuit can control to switch all sub-circuits of said motionless-image processing system, and image processing means for receiving said first image signal and said second image signal to control and perform a plurality of image processing functions, so as to generate a showing signal; storage means for accessing image data into said image processing means; and display means for receiving said showing signal to display image.

Wu et al. teaches a motion less image processing system (Col. 1, Line 53 to Col. 2, Line12) an image transmitting sub-circuit that is coupled with the external computer (Col. 4, Lines 13-24, Col. 10, Lines 34-43) to communicate image data (Col. 5, Lines 62-67); an electromagnetic induction sub-circuit (Col. 6, Lines 38-44) for receiving the electromagnetic wave signal (Col. 6, Lines 44-57); and generating a second image signal (Col. 6, Lines 19-34,

Lines 57-60, Col. 7, line 49 to Col. 8, Line 4); an image processing sub-circuit that is coupled with the image sensing sub-circuit (Col. 10, Lines 5-23) to receive said first digital signal, and said image processing sub-circuit is coupled with said transmitting sub-circuit to communicate image data (Col. 5, Lines 62-67, Col. 10, lines 34-43) and wherein said image processing sub-circuit can control to switch all sub-circuits of said motionless-image processing system (Col. 8, Lines 5-10), and image processing means for receiving said first image signal and said second image signal to control (Col. 10, Line 66 to Col. 11, Line 3) and perform a plurality of image processing functions (Col. 11, Lines 4-22), so as to generate a showing signal (Col. 11, Lines 25-27); storage means for accessing image data into said image processing means; and display means for receiving said showing signal to display image (Col.9, line 65 to Col. 10, Line 49).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Wu et al. teaching in teaching of Mager et al. to be able to determine the location of a line object lying on a tablet by detecting electromagnetic induction between the positioning coils corresponding to that line object and the grid-shaped conductors formed in grid structure of the tablet.

Regarding Claim 12, Mager et al. teaches image-sensing sub-circuit comprises an image Sensor (col. 10, Lines 4,5).

Regarding Claim 13, Mager et al. teaches wherein said image-sensor comprises a digital camera (Col. 10, Lines 4,5).

Regarding Claim 17, Wu et al. teaches electromagnetic induction sub-circuit comprises a tablet (Col. 4, Lines 13-47).

Regarding Claim 18, Wu et al. teaches electromagnetic induction sub-circuit comprises a first processor (Col. 4, Lines 13-47).

Regarding Claim 23, Wu et al. teaches electromagnetic induction sub-circuit comprises a second processor (Col. 4, Lines 13-47).

8. Claims 14,16,24,26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mager et al. (5,257,093) in view of Wu et al. (6,094,504) as applied to claims 11,12,13,17,18,23 above, and further in view of Richey (5,495,576).

Regarding Claim 14, Mager et al. teaches an image sensing sub-circuit (figure 2, Col. 2, Line 51, Col. 10, Lines 4,5), said image sensing sub-circuit (figure 2, Col. 2, Line 51, Col. 10, Lines 4,5), can catches image by transduction (Col. 1, 8-12, 14-20, Col. 9, Lines 46-58) of optical radiation of the image data to generate a first image signal (Col. 10, lines 54-59, Col. 11, Lines 7-12, Col. 2, lines 44-51).

However, Mager et al. modified by Wu et al. fails to teach image transmitting sub-circuit comprises a serial interface.

However, Ritchey teaches image transmitting sub-circuit comprises a serial interface (Col. 32, Lines 60-63).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Ritchey teaching in teaching of Mager et al. modified by Wu et al. to be able to manipulate using given data of 3D shape and contour, the geometry of subject comprising virtual model for presentation and distribution to display unit.

Regarding Claim 16, Ritchey teaches serial interface comprises a recommended standard-232 (Col. 19, Line 46-50).

Regarding Claim 24, Richey teaches second processor comprises a setting function to set the showing format and adjust the display's resolution (Col. 26, Lines 38-45).

Regarding Claim 26, Richey teaches second processor comprises a displaying function to show the stored image with specific serial number (Col. 26, Lines 52-59).

Regarding Claim 27, Richey teaches displaying function comprises an image mixing function to form a mixed image with specific serial number according to said first image signal and said second image signal (Col. 26, Lines 38-61).

Regarding Claim 28, Ritchey teaches second processor comprises a broadcasting function to show image (Col. 21, Line 38 to Col. 22, Line 18).

9. Claims 15,25,29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mager et al. (5,257,093) in view of Wu et al. (6,094,504) as applied to claims 11,12,13,17,18,23 above, and further in view of Nanba (6,297,870 B1).

Regarding Claim 15, Mager et al. teaches an image sensing sub-circuit (figure 2, Col. 2, Line 51, Col. 10, Lines 4,5), said image sensing sub-circuit (figure 2, Col. 2, Line 51, Col. 10, Lines 4,5), can catches image by transduction (Col. 1, 8-12, 14-20, Col. 9, Lines 46-58) of optical radiation of the image data to generate a first image signal (Col. 10, lines 54-59, Col. 11, Lines 7-12, Col. 2, lines 44-51).

However, Mager et al. modified by Wu et al. fails to teach wherein said serial interface comprises an universal serial bus.

However, Nanba teaches wherein said serial interface comprises an universal serial bus (Col. 3, Lines 56-58).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Nanba teaching in teaching of Mager et al. modified by Wu et al. to be able to use digital camera photoelectrically converts an optical image of an object into an image signal performs image processing and records the image signal in a recording medium.

Regarding Claim 25, Nanba teaches second processor comprises a deleting function to delete the image (Col. 3, Lines 43,44).

Regarding Claim 29, Nanba teaches displaying sub-circuit comprises a liquid crystal display (Col. 3, lines 51-53).

10. Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mager et al. (5,257,093) in view of Wu et al. (6,094,504) as applied to claims 11,12,13,17,18,23 above, and further in view of Fujioka (6,674,424 B1).

Regarding Claim 19, Mager et al. teaches an image sensing sub-circuit (figure 2, Col. 2, Line 51, Col. 10, Lines 4,5), said image sensing sub-circuit (figure 2, Col. 2, Line 51, Col. 10, Lines 4,5), can catches image by transduction (Col. 1, 8-12, 14-20, Col. 9, Lines 46-58) of optical radiation of the image data to generate a first image signal (Col. 10, lines 54-59, Col. 11, Lines 7-12, Col. 2, lines 44-51).

However, Mager et al. modified by Wu et al. fails to teach first processor comprises a locus-detecting step to generate a plurality of locus data according to the electromagnetic wave signal.

However, Fujioka teaches first processor comprises a locus-detecting step to generate a plurality of locus data according to the electromagnetic wave signal (Col. 10, Line 66 to Col. 11, Line 6).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Fujioka teaching in teaching of Mager et al. modified by Wu et al. to be able to displayed an image on a relatively large screen by a method and apparatus for inputting

information including coordinate data of allocation of a coordinate input member, such as pen, a human finger, etc.

Regarding Claim 20, Fujioka teaches plurality of locus data comprise a type of data as (Xi, Yi, W), wherein " Xi " and " Yi " indicates the position of coordinates, and " W " indicates the size of locus's diameter (Col. 10, Line 66 to Col. 11, Line 6, Col. 11, Lines 34-39 it is well known to one in the ordinary skill of art that each locus not only has coordinate data but also has center point called loci which has radius and 2*radius is diameter).

Regarding Claim 21, Fujioka teaches first processor comprises a locus-depicting step to draw a plurality of drops with specific color (Col. 23, lines 1-5).

Regarding Claim 22, Fujioka teaches plurality of drops can be drew by way of using a plurality of locus data (Xi, Yi) as a plurality of circle centers and W/2 as radius thereof (Col. 10, Line 66 to Col. 11, Line 6, Col. 11, Lines 34-39 it is well known to one in the ordinary skill of art that each locus not only has coordinate data but also has center point called loci which has radius and 2*radius is diameter).

11. Claims 30-41, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nanba (6,297,870 B1) in view of Richey (5,495,576).

Regarding Claim 30, Nanba teaches a processing method of a microprocessor (Col. 6, Lines 51) of an image processing sub-circuit (Col. 6, Lines 51,52) in the motionless-image processing system (Col. 3, lines 4,5), said processing method comprising, receiving an executive order (Col. 7, Line 5 to Col. 8, Line 24), and then performing a specific function mode by said executive order to proceed with a image processing procedure (Col. 6, Lines 20 to Col. 8, line 12).

However, Nanba fails to teach wherein said plurality of image processing functions comprises a broadcasting mode.

However, Ritchey teaches wherein said plurality of image processing functions comprises a broadcasting mode (Col. 32, Lines 21-67).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Ritchey teaching in teaching of Nanba to be able to manipulate using given data of 3D shape and contour, the geometry of subject comprising virtual model for presentation and distribution to display unit.

Regarding Claim 31, Nanba teaches specific function mode comprises a setting mode (Col. 6, Lines 14-19).

Regarding Claim 32, Nanba teaches setting mode comprises an inputting step to input a showing format (Col. 5, Lines 54-61).

Regarding Claim 33, Nanba teaches setting mode comprises an adjusting step to

adjust the resolution of the image (Col. 5, Lines 23-49, Lines 54-61).

Regarding Claim 34, Nanba teaches specific function mode comprises a deleting mode (Col. 3, Lines 44,45, Col. 6, Line 14-19).

Regarding Claim 35, Nanba teaches deleting mode comprises a confirmation step to confirm deletion of the image (Col. 3, Lines 44,45, Col. 6, Line 14-19).

Regarding Claim 36, Nanba teaches deleting mode comprises a step for deleting the image (Col. 3, Lines 44,45, Col. 6, Line 14-19).

Regarding Claim 37, Nanba teaches specific function mode comprises a displaying mode (Col. 3, Lines 51-55, Col. 6, Lines 14-19).

Regarding Claim 38, Nanba teaches displaying mode comprises an accessing step to retrieve a specific serial number of the image (Col. 3, Lines 33-55).

Regarding Claim 39, Nanba teaches displaying mode comprises a confirmation step to confirm mix of the image (Col. 3, Lines 33-55).

Regarding Claim 40, Nanba teaches displaying mode comprises an image-mixing step to form a mixed-image with said specific serial number (Col. 3, Lines 33-47).

Richey teaches second processor comprises a displaying function to show the stored image with specific serial number (Col. 26, Lines 52-59).

Regarding Claim 41, Nanba teaches displaying mode comprises a step for displaying unmixed-image to show the image with said specific serial number (Col. 3, Lines 33-47).

12. Claims 47,49,52,55,58-63,64-68, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashima (5,729,251) in view of Dunton et al. (6,556,242 B1) and Masuda et al. (6,653,983 B2).

Regarding Claim 47, Nakashima teaches a handwriting inputting function (Col. 24, Lines 29-35), comprising: an image-sensor that can catch an image by transduction of optical radiation of the image data; an image signal sub-circuit that is coupled with said image-sensor to receive said image and generate a first image signal (Col. 39, Line 45 to Col. 40, Line 58, optical radiation signals are converted to binary data or electrical signal (Col. 27, Lines 4-21)); a first microprocessor: that is coupled with said image signal sub-circuit to receive said first image signal; a display driving sub-circuit that is coupled with said first microprocessor to receive a displaying signal; a liquid crystal display that is coupled with said display driving sub-circuit to show various images (Col. 21, Line 58 to Col. 22, Line 36); an inverter sub-circuit that is coupled with said microprocessor to receive an adjusting signal, so as to generate a specific voltage (Col. 16, Line 66 to Col. 17, Line 13); an antenna loop that can receive an electromagnetic wave signal by electromagnetic induction (Col. 38, lines 31-43); and an

electromagnetic-inducting sub-circuit with a second microprocessor that is coupled with said antenna loop to receive said electromagnetic wave signal, so as to generate a second image signal (Col. 38, Lines 31-49), wherein said electromagnetic-inducting sub-circuit is coupled with said first microprocessor to transmit said second digital signal, and said first microprocessor can form a mixed-image according to said first image signal and said second image signal; and a peripheral apparatus that can emit electromagnetic wave signal by way of electromagnetic induction, said peripheral apparatus can input image above said liquid crystal display (Col. 21, Line 58 to Col. 22, Line 36, Col. 10, Line 59 to Col. 12, Line 11).

However, Nakashima fails to teach digital photo-album.

However, Dunton et al. teaches digital photo-album (Col. 1, Lines 9-17).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Dunton et al. teaching in teaching of Nakashima to be able to operate in video mode or regular still (motionless) photographic camera.

Nakashima teaches a handwriting inputting function (Col. 24, Lines 29-35).

However, fails to teach Nakashima a back-lighted module that is coupled with said inverter sub-circuit to receive said specific voltage.

However, Masuda et al. teaches a back-lighted module that is coupled with said inverter sub-circuit to receive said specific voltage (Col. 4, Lines 15-19).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Masuda et al. teaching in teaching of Nakashima to be able to have an antenna or antennae (loop or folded) which are limited in mounting volume such as notebook-sized personal computer.

Regarding Claim 49, Nakashima teaches wherein said plurality of image processing functions comprises a broadcasting mode (Col. 13, Lines 2-4 It is well known to one ordinary skill of art that networks are used for broadcasting).

Regarding Claim 52, Nakashima teaches plurality of switches comprise a first switch to control to switch said antenna loop and said electromagnetic-inducting sub-circuit (Col. 27, Lines 12-21, Col. 38, Lines 31-34, Col. 27, Lines 18-21).

Regarding Claim 55, Nakashima teaches plurality of switches comprise a fourth switch to control to switch said image-sensor (Col. 27, Lines 4-55).

Regarding Claim 58, Dunton et al. teaches serial interface comprises a recommended standard-232 (Col. 3, Lines 50-58).

Regarding Claim 59, Nakashima teaches first microprocessor is coupled with a stored device (Col. 25, Lines 27-34).

Regarding Claim 60, Nakashima teaches stored device is coupled with said microprocessor via an accessing interface, so that said microprocessor accesses various image data (Col. 24, Lines 24-54).

Regarding Claim 61, Nakashima teaches display driving sub-circuit is coupled with a adjusting button to adjust the pictures shown on said liquid crystal display (Col. 23, Line 57 to Col. 24, Line 16).

Regarding Claim 62, Masuda et al. teaches back-lighted module is located under said liquid crystal display (Col. 4, Lines 15-19).

Regarding Claim 63, Masuda et al. teaches antenna loop (Col. 1, lines 25,26, 34-36) is located under said back-lighted module (Col. 4, Lines 15-19).

Regarding Claim 64, Nakashima teaches electromagnetic-inducting sub-circuit (Col. 38, Lines 31-34) comprises: an amplifier that is coupled with said antenna loop (Col. 27, Lines 18-21); a band pass filter that is coupled with said amplifier to generate a signal with a specific frequency (Col. 17, Lines 14-63); a shaping sub-circuit that is coupled with said band pass filter to receive said signal with said specific frequency and generate a clock signal, wherein said second microprocessor is coupled with said shaping sub-circuit to receive said clock signal (Col. 20, Line 66 to Col. 22, Line36) and calculate a pressure value, a rectifier that is coupled with said band pass filter to receive said signal with said specific frequency and generate a direct signal (Col. 17, Line 14 to Col. 18, line 43); a peak detector that is coupled with said rectifier to detect the peak of said direct signal; and an Analogy/Digital converter that is coupled with said peak detector to receive the peak and transform the peak into a digital signal, wherein said second microprocessor is coupled with said Analogy/Digital converter to receive said digital signal and

calculate an absolute coordinate (Col. 17, Line 14 to Col. 18, Line 43, Col. 20, line 66 to Col. 22, Line 36).

Regarding Claim 65, Nakashima teaches second image signal is generated according to said pressure value and said absolute coordinate by said second microprocessor (Col. 20, line 66 to Col. 22, Line 43).

Regarding Claim 66, Nakashima teaches second microprocessor is coupled with said first microprocessor to transmit said second image signal (Col. 13, Lines 40-67, Col. 14, Lines 6-67).

Regarding Claim 67, Nakashima teaches second microprocessor is coupled with said antenna loop to control to scan position (Col. 17, Lines 14-63).

Regarding Claim 68, Nakashima teaches peripheral apparatus comprises a cordless pen (Col. 14, Lines 36,37).

13. Claims 48,50,51,53,54,56,57, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashima (5,729,251) in view of Dunton et al. (6,556,242 B1) and Masuda et al. (6,653,983 B2). as applied to claims 47,49,52,55,58-63,66-68, above, and further in view of Nanba (6,297,870 B1).

Regarding Claim 48, Nakashima teaches a handwriting inputting function (Col. 24, Lines 29-35).

However, Nakashima modified by Masuda et al. and Dunton et al. fails to teach first microprocessor is coupled with a plurality of mode buttons to select specific modes (Col. 6, Lines 14-30).

However, Nanba teaches first microprocessor is coupled with a plurality of mode buttons to select specific modes (Col. 6, Lines 14-30).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Nanba teaching in teaching of Nakashima modified by Masuda et al. and Dunton et al. to be able to use digital camera photoelectrically converts an optical image of an object into an image signal performs image processing and records the image signal in a recording medium.

Regarding Claim 50, Nanba teaches deleting mode comprises a step for deleting the image (Col. 3, Lines 44,45, Col. 6, Line 14-19).

Regarding Claim 51, Nanba teaches first microprocessor is coupled with a plurality of switches to start specific functions (Col. 3, Lines 51-55, Col. 6, Lines 14-19).

Regarding Claim 53, Nanba teaches plurality of switches comprise a second switch to control image variation (Col. 3, Lines 51-55, Col. 6, Lines 14-19).

Regarding Claim 54, Nanba teaches plurality of switches comprise a third switch to control to change page of the image (Col. 23, Lines 34-47).

Regarding Claim 56, Nanba teaches first microprocessor is coupled with a transmitting interface to communicate the external computer (figure 5, Col. 6, Line 49 to Col. 7, Line 20).

Regarding Claim 57, Nanba teaches wherein said serial interface comprises an universal serial bus (Col. 3, Lines 56-58).

Response to Arguments

14. Applicant's arguments filed 05-17-2004 have been fully considered but they are not persuasive.

Applicant argues that cited references for claim 42 teaches electromagnetic wave signal is converted from the image signal.

Examiner disagrees as Nakashima teaches a processing method of a sub-circuit with electromagnetic induction (Col. 38, Lines 31-34) in the motionless-image processing system (Col. 1, lines 14,15, Lines 33,34), said processing method comprising: performing a scanning step to receive electromagnetic wave signal (Col. 22, Lines 37-53); performing a magnifying/filtering step (Col. 17, Lines 64 to Col. 18, Line 43) to generate a signal with a specific frequency (Col. 17, Lines 14-63); receiving said signal with said specific frequency and performing a transforming step to generate a digital signal (Col. 17, Line 14 to Col. 18, Line 43).

Applicant argues for claim 1 cited references fails to point out the sound signal that cannot be replaced by the second image signal.

Examiner argues the claim 1, does not recite "the sound signal is replaced by the second image signal."

Applicant argues the cited references of fail to teach applicant's claim invention in claim 1.

Examiner disagrees as Nakashima teaches motionless-image processing using electromagnetic induction circuit with MPU and a ROM. Nichani teaches an image processing system (Col. 4, Lines 6-8) comprising: image-transmitting means for generating and transmitting a first image signal (Col. 4, Lines 49-53), transmitted to computer-image processing system (Col. 8, Lines 33-39); electromagnetic induction means for- generating and transmitting a second image signal (Col. 5, 43-47, Col. 6, Lines 12-15); image processing means for receiving said first image signal and said second image signal to control and perform a plurality of image processing functions (Col. 7, Line 62 to Col. 8, Line 6), so as to generate a showing signal (Col. 9, Line 61 to Col. 10, Line 3); storage means for accessing image data into said image processing means; and display means for receiving said showing signal to display image (Col. 12, Lines 1-27).

Nakashima teaches electromagnetic induction means for- generating and transmitting a second image signal (Col. 38, Lines 31-49).

Applicant argues Wu et al. and Mager et al. fails to teach electromagnetic induction sub-circuit for receiving the electromagnetic wave signal and generating a second image signal,

Examiner disagrees Mager et al. teaches an image sensing sub-circuit (figure 2, Col. 2, Line 51, Col. 10, Lines 4,5), said image sensing sub-circuit (figure 2, Col. 2, Line 51, Col. 10,

Lines 4,5), can catches image by transduction (Col. 1, 8-12, 14-20, Col. 9, Lines 46-58) of optical radiation of the image data to generate a first image signal (Col. 10, lines 54-59, Col. 11, Lines 7-12, Col. 2, lines 44-51).

Wu et al. teaches a motion less image processing system (Col. 1, Line 53 to Col. 2, Line12) **an image transmitting sub-circuit that is coupled with the external computer (Col. 4, Lines 13-24, Col. 10, Lines 34-43) to communicate image data (Col. 5, Lines 62-67); an electromagnetic induction sub-circuit (Col. 6, Lines 38-44) for receiving the electromagnetic wave signal (Col. 6, Lines 44-57); and generating a second image signal (Col. 6, Lines 19-34, Lines 57-60, Col. 7, line 49 to Col. 8, Line 4); an image processing sub-circuit that is coupled with the image sensing sub-circuit (Col. 10, Lines 5-23) to receive said first digital signal, and said image processing sub-circuit is coupled with said transmitting sub-circuit to communicate image data (Col. 5, Lines 62-67, Col. 10, lines 34-43)** and wherein said image processing sub-circuit can control to switch all sub-circuits of said motionless-image processing system (Col. 8, Lines 5-10), and image processing means for receiving said first image signal and said second image signal to control (Col. 10, Line 66 to Col. 11, Line 3) and perform a plurality of image processing functions (Col. 11, Lines 4-22), so as to generate a showing signal (Col. 11, Lines 25-27); storage means for accessing image data into said image processing means; and display means for receiving said showing signal to display image (Col.9, line 65 to Col. 10, Line 49).

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is informed that all of the other additional cited references either anticipate

or render the claims obvious. In order to not to be repetitive and exhaustive, the examiner did draft additional rejection based on those references.

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prabodh M Dharia whose telephone number is 703-605-1231. The examiner can normally be reached on M-F 8AM to 5PM.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703-3054938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

PD

AU2673

June 8, 2004

VIJAY SHANKAR
PRIMARY EXAMINER